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Oil Funds: Problems Posing as Solutions?

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Heavy dependence on oil revenues—which are volatile and unpredictable, and will, sooner or later, dry up—greatly complicates a country's fiscal policy. To tackle these problems, many oil-producing countries are setting up oil funds. But are these really a solution, or just a problem posing as one?

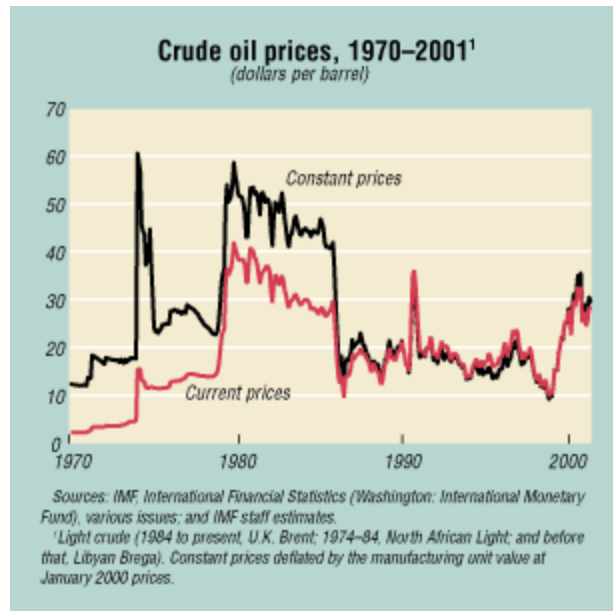
Oil funds have become fashionable in the wake of recent high and volatile oil prices and new discoveries. In recent years, many countries have either established oil funds or are considering doing so. These funds have different rules and names, but their objectives are the same: to help governments deal with the problems created by large oil revenues.

Rationales

Oil funds are usually designed to address the problems created by the volatility and unpredictability of oil revenues ("stabilization" funds), the need to save part of the oil revenues for future generations ("savings" funds), or both.

Because oil prices are volatile and unpredictable (see chart), so are oil revenues. This means that actual revenues often differ greatly from budget projections, which, in the case of shortfalls, requires offsetting fiscal adjustment (typically, decreased spending) or financing. Cutting spending sharply at short notice is costly. Current expenditure cuts can be notoriously difficult and unpopular, and cutting capital spending might mean abandoning viable projects that are crucial to a country's development. Countries could decide not to cut spending but to finance the revenue shortfall instead.

But many countries do not have large financial assets to run down and are constrained in their borrowing (especially when their oil revenues are low). If the oil revenue shock (typically created by a sharp decline in world oil prices) is permanent, financing the shortfall is unsustainable. Dealing with higher-than-expected oil revenues is easier, but still difficult to do efficiently: spending money quickly often means spending it poorly. And hanging over every project started when oil prices rise is the threat that it may be scrapped when they fall.



Stabilization funds aim to solve this problem of volatile and unpredictable oil revenues. When oil revenues are high, the argument runs, some part of these would be channeled from the budget to the stabilization fund; when oil revenues are low, the stabilization fund would finance the shortfall. This would stabilize budgetary revenue and thus budgetary expenditure. But this rationale is flawed.

The international price of oil does not appear to have a constant average, or at least not one to which it reverts in a practical period of time. Thus, one cannot say with confidence that oil prices will fall or rise in the future or that a price change is temporary or permanent. Stabilization funds governed by rules that assume otherwise face either continuous accumulation or rapid exhaustion of resources. The way oil prices behave helps explain why many domestic and international commodity price stabilization schemes collapsed or were terminated during the 1980s and 1990s. Stabilization funds can avoid this problem by linking the oil

price at which they receive resources from, or transfer them to, the budget to the actual price (for example, a three-year moving average of oil prices). This course of action, however, would make smoothing, rather than stabilizing, public finances the funds' objective.

It is doubtful that stabilization funds will be able to achieve even this smoothing objective. Although the operational objective of stabilization funds is to smooth budgetary revenue, the government's policy objective is to smooth expenditure. Because resources are fungible and stabilization funds directly affect only budgetary revenue and not budget spending or the overall deficit, the only way they can affect spending is by imposing a liquidity constraint. By placing some of the oil revenue outside the budget during good times, the government seeks to prevent itself from increasing expenditure. But in the absence of liquidity constraints, governments could borrow or sell off assets to finance higher expenditure, even if a stabilization fund were to smooth budget revenue. Indeed, governments will find borrowing particularly easy when the oil price is high and the fund's assets are burgeoning. Smoothing expenditure requires making fiscal policy decisions for which a stabilization fund cannot substitute.

Savings funds suffer from the same problem of fungibility. These funds typically receive a constant share of oil revenues that, the argument runs, are automatically saved for future generations. If these funds are to be successful, they must lead to higher government savings in aggregate. If instead the government does not reduce its expenditure and borrows to finance the gap left by the revenue diverted to the fund, government aggregate savings are unaffected: savings fund assets are merely offset by government debt.

Requiring the oil fund to, in effect, finance the budget can solve this problem of fungibility. The oil fund could receive the budget surplus or finance the deficit. Such a fund would provide an explicit link between fiscal policy and the fund's asset accumulation, in that changes in the fund's assets would correspond to the change in the overall net financial position of the government. But such an arrangement would remove any disciplining effect of a savings fund. The fund's balance is determined entirely by the budget and the fund has no "automatic" saving mechanism. Again, saving oil revenues requires making fiscal policy decisions for which a fund is no substitute.

Some savings funds also undertake government spending directly. To the extent they do so, this reduces financial savings. Investment does not reduce economic savings, but it can be carried out through the budget, while a fund dedicated to investment and managed separately from other public sector spending decisions will likely lead to inefficiency. Any consumption spending by a fund reduces both financial and economic savings.

Other arguments are made for oil funds, but they too are unconvincing. The "Dutch disease" (which develops when a booming energy sector damages other tradable goods or services sectors of the economy) may be avoided if the oil fund places its assets abroad, but it could also be avoided if the government or the central bank used the oil revenues to boost foreign deposits or exchange reserves. Similarly, a fund could help increase the government's stock of liquid assets, although the government could do this without a formal fund. A fund may make saving easier politically, but, as discussed previously, saving requires the taking of other fiscal policy decisions, and if politicians are intent on spending, a fund is unlikely to stand in their way. Moreover, a large fund may create additional spending pressure. (The electorate may question why high taxes are necessary when the fund has so much money.) And if politicians need rules to restrain them, an overall fiscal rule, such as a limit on the non-oil balance (that is, on the budget balance excluding oil revenues), or legislation mandating fiscal responsibility would be better.

Operational aspects

The theoretical arguments for oil funds are unconvincing, and their operational implications can be negative. Oil funds can be poorly integrated with the budget, which can lead to a loss of overall fiscal control and create problems of expenditure coordination, such as duplication of expenditures or capital spending decisions being made without considering their implications for future recurrent spending. Separate spending programs lead to problems of how spending priorities are set and which are to be financed by the fund. Any earmarking or off-budget expenditures would compound these problems (see box).

Oil funds and extrabudgetary spending in Nigeria and Venezuela

Before 1995, *Nigeria* had various types of extrabudgetary funds that were financed by oil revenues and used for off-budget expenditure. Spending from these funds expanded from 4 percent of GDP in 1990 to close to 12 percent of GDP—more than one-third of the federal budget—in 1994. Expenditures were undertaken mainly in various types of investments in the oil sector and other "priority" development projects for which project selection criteria and procedures were lax. Moreover, capacity to manage investment expenditure was inadequate. As a result, a number of large investment projects have required large and costly financing and have had low ex post rates of return.

In the mid-1970s, *Venezuela* established the Venezuelan Investment Fund (VIF) to act as the repository of its oil windfall. Its resources were soon diverted toward acquiring equity stakes in public enterprises (including in the manufacturing sector), many of which turned out to be loss makers. In recent years, a share of the VIF's resources has been used to provide cash injections to state companies in the electricity sector. In effect, electricity subsidies have been provided off budget by using VIF resources.

An oil fund can complicate the management of public assets and liabilities. The fund's asset management may not reflect the consolidated portfolio of the government—for example, the budget could mandate borrowing at high interest rates while the oil fund invests in low-return assets. Short-term financial management of the fund is also unlikely to be coordinated with the ministry of finance's debt-management operations and the treasury's management of the government's cash flow.

Governance, transparency, and accountability may well be undermined by an oil fund. By their very nature, oil funds are usually outside existing budget systems and are often accountable to only a few political appointees. This makes such funds especially susceptible to abuse and political interference. Reporting and auditing requirements for the funds are often loose, and their lack of integration with the budget makes it more difficult for both parliament and the public to monitor the use of public resources as a whole.

Country experiences with oil funds

These theoretical and operational problems of oil funds are further demonstrated by an empirical analysis of countries' experiences with oil funds. Econometric analysis suggests that oil funds do not affect the pattern of government expenditure. A sample of 12 countries producing nonrenewable resources, including 5 that had funds, was examined. Three main findings emerged.

- In countries without a fund, government spending usually followed oil/resource export earnings, increasing when the value of such exports was high and decreasing when it was low.
- In some countries with a fund, expenditure also closely followed oil/resource export earnings, suggesting that the mere existence of a fund does not substantially change this relationship.
- In other countries with a fund, expenditure did not follow oil/resource export earnings, but this was the case both before and after establishment of the fund. In other words, the evidence suggests that the creation of a fund did not have any impact on the relationship between oil and other natural resource export earnings and government expenditure.

Looking in detail at the specific experiences of various countries with oil/resource funds also suggests that funds are in most cases ineffectual and often have adverse impacts. Perhaps the most successful experience with an oil fund has been Norway's with its State Petroleum Fund (SPF). The SPF effectively finances the overall budget, and thus the large accumulation of resources in the SPF (held abroad) genuinely represents fiscal savings. Because the SPF functions as a government account under the Ministry of Finance's control, it does not interfere with fiscal policy or the budgetary process. It is also subject to highly demanding transparency, accounting, and governance standards. Yet it is doubtful whether such an approach would be appropriate for other countries. Norway has, typically, implemented sound and transparent fiscal and macroeconomic policies before setting up the SPF; the SPF places no constraints on fiscal policy; and oil revenues are only a small part of total government revenues.

The experience of funds in countries with greater dependence on oil or other nonrenewable resources for revenues and that do not have a history of prudent macroeconomic policies is much more mixed, as the following examples show:

- Papua New Guinea's Mineral Resources Stabilization Fund performed poorly in terms of stabilizing budgetary expenditure and revenue, and the government recently closed it.
- Venezuela's Macroeconomic Stabilization Fund, established in late 1998, has already been subjected to rule changes and did not prevent the implementation of

an expansionary fiscal policy as oil prices rose in 2000. The government was able to make its mandated payments to the fund in 1999 and 2000 only by undertaking expensive domestic borrowing.

Specific country experience with funds highlights some of the practical problems they can create. Fund rules have often been changed, effectively allowing the government greater discretion, thereby undermining one of the main justifications for establishing the funds. Fund performance also seems linked to the importance of oil/resource revenue. The problems posed by oil/resource revenues for countries like Norway are much less serious than for many other oil-producing countries, implying that funds may work only when they are not needed.

Conclusion

The volatility, uncertainty, and exhaustibility of oil revenues greatly complicate fiscal policy, but rather than being distracted by potentially problematic funds, governments should address the problems head on. They could do this by setting fiscal policy in a long-run context, focusing on maintaining a sustainable non-oil fiscal balance, restraining expenditure when oil prices rise, transparently presenting the relevant issues to parliament and the public, and exploring ways of hedging oil price risk using financial markets. Instead of being part of such a solution to the fiscal policy challenges posed by large oil revenues, oil funds are often part of the problem.

This article draws on the authors' paper, Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications, IMF Occasional Paper No. 205 (Washington: International Monetary Fund, 2001).

Suggestions for further reading:

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